

Amendments to the Claims

The following listing of claims will replace all prior versions and listings of claims in the application.

1. (Original) 2,3-Dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo-[1,2-a]pyridine-6-carboxamide mesylate salt and crystalline forms thereof.
2. (Previously presented) The compound according to claim 1, wherein the crystalline form is 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo-[1,2-a]pyridine-6-carboxamide mesylate salt form A, characterized by a triclinic unit cell with parameters: $a = 8.6 \text{ \AA}$, $b = 18.7 \text{ \AA}$, $c = 15.8 \text{ \AA}$, $\alpha = 90^\circ$, $\beta = 113^\circ$, $\gamma = 90^\circ$.
3. (Previously presented) The compound according to claim 1, wherein the crystalline form is 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo-[1,2-a]pyridine-6-carboxamide mesylate salt form A, characterized by an X-ray powder diffraction pattern exhibiting substantially the following d-values:

Form A		
d-value (\AA)	d-value (\AA)	d-value (\AA)
11.4	5.7	3.92
9.3	4.72	3.18
7.8	4.35	

4. (Previously presented) The compound according to claim 1, wherein the crystalline form is 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo-[1,2-a]pyridine-6-carboxamide mesylate salt form A, characterized by a Raman Spectrum exhibiting substantially the following relative intensities above 18.6:

Raman shift (cm ⁻¹)	Relative intensity	Raman shift (cm ⁻¹)	Relative intensity
2935.9	56.2	1042.3	41.6
1671.2	31.8	877.6	33.6
1617.7	56.6	781.7	28.1
1597.2	35.8	708.6	18.6
1590.4	39.4	554.9	23.7
1533.9	26.3	542.8	22.3
1484.4	22.6	535.7	25.9
1427.1	100.0	501.2	29.9
1415.8	85.8	379.6	25.2
1392.9	46.7	352.9	22.6
1383.1	55.8	338.1	28.8
1296.2	20.1	268.3	22.3
1271.1	25.5	239.7	39.8
1258.2	42.0	228.2	33.2
1095.5	21.5	196.8	26.6
1059.7	20.4		

5. (Previously presented) The compound according to claim 1, wherein the crystalline form is 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo-[1,2-a]pyridine-6-carboxamide mesylate salt form B, characterized by a triclinic unit cell with parameters: $a = 8.4 \text{ \AA}$, $b = 14.2 \text{ \AA}$, $c = 19.9 \text{ \AA}$, $\alpha = 93^\circ$, $\beta = 100^\circ$, $\gamma = 97^\circ$.

6. (Previously presented) The compound according to claim 1, wherein the crystalline form is 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo-[1,2-a]pyridine-6-carboxamide mesylate salt form B, characterized by an X-ray powder diffraction pattern exhibiting substantially the following d-values:

Form B		
d-value (\AA)	d-value (\AA)	d-value (\AA)
11.8	8.3	4.72
11.1	5.9	4.52
9.8	5.5	

7. (Previously presented) The compound according to claim 1, wherein the crystalline form is 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo-[1,2-a]pyridine-6-

carboxamide mesylate salt form B, characterized by a Raman Spectrum exhibiting substantially the following relative intensities above 18.6:

Raman shift (cm ⁻¹)	Relative intensity	Raman shift (cm ⁻¹)	Relative intensity
2937.4	53.5	1100.1	21.9
2928.8	41.9	1040.8	50.7
1671.4	33.5	964.9	18.6
1617.0	47.9	888.2	34.4
1590.3	39.1	871.9	28.4
1533.8	20.9	777.4	31.6
1480.7	20.9	751.4	19.1
1461.0	21.4	710.3	18.6
1426.4	81.9	553.1	26.0
1417.3	100.0	536.1	26.5
1394.4	50.2	501.3	31.2
1383.1	59.1	382.3	22.3
1357.5	20.9	353.1	25.6
1305.8	24.7	335.5	32.1
1280.3	19.1	285.4	22.8
1254.9	55.8	241.1	41.4
1163.5	22.8	198.9	22.3

8. (Previously presented) The compound according to claim 1, wherein the crystalline form is 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo-[1,2-a]pyridine-6-carboxamide mesylate salt form C, characterized by an X-ray powder diffraction pattern exhibiting substantially the following d-values:

Form C		
d-value (Å)	d-value (Å)	d-value (Å)
13.1	5.7	3.57
10.7	4.88	3.51
6.8	4.39	

9. (Previously presented) The compound according to claim 1, wherein the crystalline form is 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo-[1,2-a]pyridine-6-

carboxamide mesylate salt form D, characterized by an X-ray powder diffraction pattern exhibiting substantially the following d-values:

Form D		
d-value (Å)	d-value (Å)	d-value (Å)
13.8	6.4	3.55
9.1	5.1	2.38
6.9	4.62	

10. (Previously presented) The compound according to claim 1, wherein the crystalline form is 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo-[1,2-a]pyridine-6-carboxamide mesylate salt form D, characterized by a triclinic unit cell with parameters: $a = 8.6 \text{ Å}$, $b = 15.9 \text{ Å}$, $c = 19.4 \text{ Å}$, $\alpha = 70^\circ$, $\beta = 89^\circ$, $\gamma = 75^\circ$.

11. (Previously presented) The compound according to claim 1, wherein the crystalline form is 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo-[1,2-a]pyridine-6-carboxamide mesylate salt form E, characterized by an X-ray powder diffraction pattern exhibiting substantially the following d-values:

Form E		
d-value (Å)	d-value (Å)	d-value (Å)
12.5	6.1	3.88
10.1	5.1	3.71
9.5	4.61	

12. (Previously presented) The compound according to claim 1, wherein the crystalline form is 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo-[1,2-a]pyridine-6-carboxamide mesylate salt form F, characterized by an X-ray powder diffraction pattern exhibiting substantially the following d-values:

Form F		
d-value (Å)	d-value (Å)	d-value (Å)
13.5	5.8	3.70
7.9	5.0	3.63
6.9	3.96	

13. (Previously presented) The compound according to claim 1, wherein the crystalline form is 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo-[1,2-a]pyridine-6-carboxamide mesylate salt form G, characterized by an X-ray powder diffraction pattern exhibiting substantially the following d-values:

Form G		
d-value (Å)	d-value (Å)	d-value (Å)
13.6	6.4	3.82
10.1	5.7	3.61
9.2	5.1	

14. (Previously presented) The compound according to claim 1 wherein the crystalline form is 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo-[1,2-a]pyridine-6-carboxamide mesylate salt form H, characterized by an X-ray powder diffraction pattern exhibiting substantially the following d-values:

Form H		
d-value (Å)	d-value (Å)	d-value (Å)
11.1	6.3	3.84
8.0	5.4	3.59
7.1	4.01	

15. (Previously presented) 2,3-Dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo[1,2-a]pyridine-6-carboxamide mesylate salt comprising a mixture of two or more of the crystalline forms of 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-

hydroxyethyl-imidazo[1,2-a]pyridine-6-carboxamide mesylate salt according to any one of claims 2 to 14.

16. (Previously presented) 2,3-Dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo[1,2-a]pyridine-6-carboxamide mesylate salt comprising a mixture of form A and form B.
17. (Previously presented) 2,3-Dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo[1,2-a]pyridine-6-carboxamide mesylate salt comprising a mixture of two or more crystalline forms of the compound selected from the group consisting of form A, form B and form H.
18. (Previously presented) A process for obtaining form A according to any one of claims 2 to 4 comprising the steps of:
 - a) dissolving or suspending 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo[1,2-a]pyridine-6-carboxamide in a suitable solvent;
 - b) adding methanesulfonic acid at a temperature of 40°C or greater;
 - c) allowing the solution or suspension to crystallize; and
 - d) isolating the form A thus obtained.
19. (Previously presented) A process for obtaining form B according to any one of claims 5 to 7 comprising the steps of:
 - a) dissolving or suspending 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo[1,2-a]pyridine-6-carboxamide in a suitable solvent;
 - b) adding methanesulfonic acid at a temperature lower than 40°C;
 - c) allowing the solution or suspension to crystallize; and
 - d) isolating the form B thus obtained.

20. (Previously presented) A process for obtaining form A according to any one of claims 2 to 4 comprising the steps of:
- a) dissolving or suspending any form of 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo[1,2-a]pyridine-6-carboxamide mesylate salt in a suitable solvent;
 - b) allowing the solution or suspension to crystallize at a temperature of 40°C or greater, optionally using form A to induce crystallization; and
 - c) isolating the form A thus obtained.
21. (Previously presented) A process for obtaining form B according to any one of claims 5 to 7 comprising the steps of:
- a) dissolving or suspending any form of 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo[1,2-a]pyridine-6-carboxamide mesylate salt in a suitable solvent;
 - b) allowing the solution or suspension to crystallize at a temperature lower than 40°C, optionally using form B to induce crystallization; and
 - c) isolating the form B thus obtained.
22. (Previously presented) The process according to claim 20, wherein form B of 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo[1,2-a]pyridine-6-carboxamide mesylate salt is dissolved or suspended in accordance with step a).
23. (Previously presented) The process according to claim 21, wherein form A of 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo[1,2-a]pyridine-6-carboxamide mesylate salt is dissolved or suspended in accordance with step a).
24. (Previously presented) The process according to claim 18 or 19, wherein seeds are added to the solution or suspension to induce crystallization.
- 25-26. (Canceled)

27. (Previously presented) 2,3-Dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo[1,2-a]pyridine-6-carboxamide mesylate salt form A prepared according to any one of claims 18, 20, 22 or 24.
28. (Previously presented) A pharmaceutical formulation comprising at least one of the crystalline forms of 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo[1,2-a]pyridine-6-carboxamide mesylate salt according to any one of claims 1 to 14 in admixture with at least one pharmaceutically acceptable excipient.
29. (Previously presented) A method for inhibiting gastric acid secretion, the method comprising the administration of a therapeutically effective amount of 2,3-dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo[1,2-a]pyridine-6-carboxamide mesylate salt according to any one of claims 1 to 14 to a patient in need thereof.
- 30-37. (Canceled)
38. (Previously presented) 2,3-Dimethyl-8-(2,6-dimethylbenzylamino)-N-hydroxyethyl-imidazo[1,2-a]pyridine-6-carboxamide mesylate salt form B prepared according to any one of claims 19, 21, 23, or 24.